

REMARKS

In the OFFICE ACTION dated May 30, 2003, claims 13-23 and 25-30 (the only claims pending in this application) were rejected under 35 U.S.C. §102(e) and 35 U.S.C. §103(a). The single reference relied upon by the Examiner (*Chen*) describes a molecular electronic device that includes a protective layer 24 that is a metal (*see* column 5, at lines 58-62). It is important to note, as shown in FIGS. 4a and 4b that the metal or electrically conductive layer 24 taught by *Chen* is not limited to locations under electrode 14. Instead, the conductive layer 24 extends across the top of the electronic device. Applicants attach herewith a copy of the drawings from *Chen* that have been colored in red to highlight the fact that the conductive protective layer 24 extends outward from electrode 14. FIG. 4b of *Chen* depicts only one electrode 14 located on top of the conductive protective layer 24. As is well known in the art, devices of the type shown in FIG. 4b do not typically include one electrode 14, but rather include a plurality of such electrode patterns. Locating more than one electrode 14 on top of conductive layer 24 would result in the two electrodes being electrically shorted out.

Applicants also enclose herewith a copy of FIG. 2C from the present application which demonstrates the problem that occurs when two electrodes (electrodes 18) are located on top of a protective metal layer 14 (colored red). As is apparent from FIG. 2C, the conductive layer 14 provides an electrical short between the two electrodes 18 rendering the device inoperative. It should be noted that claims 13-20 of the present application were intended to cover "an assembly for use in making a molecular electronic device." The assembly set forth in claims 13-20 corresponds to assemblies of the type shown in FIG. 2C of *Chen*. Applicants specifically claimed the assembly in claims 13-20 as being "for use" in making a molecular electronic device. This was done because applicants recognized that the device shown in FIG. 2C of the present application and FIGS. 4a and 4b of *Chen* are inoperative assemblies. Applicants cancel claims 13-20 to remove them from further consideration.

With respect to claims 21-23 and 25-30, these claims have been amended to more particularly point out that the layer of electrically conductive protective material in applicants' invention is located only on the interior surface of the second electrode pattern as

shown in FIGS. 3 and 4 of applicants' drawings. Applicants include a copy of FIGS. 3 and 4 with the conductive protective layer being highlighted in red to clearly demonstrate that this type of device provides the advantages of the protective layer 14 without the problems of short circuiting the entire device that are present in *Chen*. In addition, it should be pointed out that applicants' claimed invention requires that there be a plurality of electrode intersections that are formed by the first and second electrode patterns. One of ordinary skill in the art following the teachings of *Chen* would produce a device with a protective layer 24 that extends entirely across the device to produce a shorted-out, non-functioning device. Applicants' invention, on the other hand, provides a discontinuous protective layer that is located only under the upper electrode pattern and therefore provides an operational electronic device not possible following the teachings of *Chen*.

In view of the above amendments and remarks, applicants respectfully request that this application be reexamined and that the claims, as amended, be allowed.

Please charge any fees or credit any overpayments to Deposit Account No. 50-1811.

Respectfully submitted,

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